

6.0 LOCAL SHORT-TERM USES AND LONG-TERM PRODUCTIVITY

6.1 METHODOLOGY

The relationship between local short-term uses of our environment and the enhancement of its long-term productivity under the proposed alternatives is a required topic of discussion in a Draft EIR/EIS under both CEQA and NEPA.

During the life of the SR-22/West Orange County Connection, there would be benefits and gains, as well as costs and impacts. This section presents an evaluation of the short-term use of the environment in relation to adverse effects on the maintenance or enhancement of long-term productivity.

The Caltrans *Environmental Handbook – Volume I* (1995)¹ requires a summary of any tradeoffs caused by the proposed project that would lead to short-term (economic) gains at the expense of long-term (natural) productivity. It is assumed that during the life of a project it will give benefits. At the same time there will usually be costs, side effects, and loss of natural resources that have long-term productive value. For this discussion, short-term and long-term relates to the time frame for environmentally significant consequences of the proposed action.

Short-term uses include such benefits as improved transportation, better safety, lowered energy use, better public services, more efficient economic activities, and improved development potential. Short-term uses also include such costs as construction materials consumed, disrupted community or economic activities, and existing homes or businesses removed. Long-term productivity refers to valuable uses for existing environment (e.g., wetlands, open space, recreation areas, floodplains, wildlife habitat, groundwater recharge, areas that support rare species, or existing urban living and working places) and renewable resources (e.g., agriculture, timber, fisheries, ranching, or water supply). Long-term productivity also refers to environmental quality such as low noise levels, clean air, pure water, and low levels of other kinds of pollutants.

¹ Available at Caltrans, District 12.

6.2 ANALYSIS

6.2.1 No Build Alternative

A. SHORT-TERM BENEFITS

Because the No Build Alternative would not include any improvements, other than those discussed in other environmental documents, there would not be short-term benefits related to this alternative.

B. SHORT-TERM COSTS/IMPACTS

Because the No Build Alternative would not include any construction, other than those discussed in other environmental documents, there would not be short-term costs or impacts related to this alternative.

C. IMPACTS TO LONG-TERM PRODUCTIVITY

Because there would be no construction under the No Build Alternative, there would also be no impacts to long-term productivity.

6.2.2 TSM/Expanded Bus Service Alternative

A. SHORT-TERM BENEFITS

The TSM/Expanded Bus Service Alternative would improve transportation, especially for transit. The benefits are limited by the minimal amount of construction contained within this alternative. The transportation/circulation analysis shows that there would be a small mode shift from drive-alone to transit (17 percent increase in transit ridership). The time spent commuting would decrease slightly (by 0.5 percent) and there would be slightly higher speeds on the freeways (1.5 percent higher), compared to the No Build Alternative. Within the corridor (including parallel arterials), there would be slight increases in speeds at some screenlines. There would be a small travel time benefit over the No Build Alternative, approximately a half-minute during peak periods.

Of the 30 freeway segments studied on SR-22, the TSM/Expanded Bus Service Alternative would result in one less segment operating at LOS F than under the No Build Alternative.

There would be a minimal number of construction jobs associated with the TSM/Expanded Bus Service Alternative. Over the long term, there would be an undetermined increase in jobs due to the larger bus fleet.

B. SHORT-TERM COSTS/IMPACTS

The TSM/Expanded Bus Service Alternative includes only minor construction compared to the two build alternatives. Cost estimates are \$68 million (Year 2001 dollars), which includes the costs of additional bus service and advanced technology improvements such as signal synchronization and electronic message signs.

C. IMPACTS TO LONG-TERM PRODUCTIVITY

Because there would be limited construction under the TSM/Expanded Bus Alternative, there would also be limited impacts to long-term productivity.

The TSM/Expanded Bus Service Alternative is not consistent with land use policies of local jurisdictions that anticipate improvements to mobility and transportation facilities.

This alternative would contribute to the pollutant burden for nitrogen oxides and some elements of this alternative are not included in the existing (1998) RTP. Therefore, the TSM/Expanded Bus Service Alternative does not conform to the existing RTP.

6.2.3 Full Build Alternative

A. SHORT-TERM BENEFITS

Short-term benefits that would result from the Full Build Alternative relate generally to improved traffic due to the availability of an alternative mode. There would be a small mode shift from drive-alone to transit (14 percent increase in transit ridership). The time spent commuting would decrease (by approximately 4.5 percent) and there would be higher speeds on the freeways (4.1 percent higher), compared to the No Build Alternative. Within the corridor (including parallel arterials), there would be slight increases in speeds at all screenlines, most significantly between Harbor Boulevard and Haster Street, where there would be nearly a ten-kilometer-per-hour (6.5-mile-per-hour) improvement. There would be a substantial travel time benefit over the No Build Alternative, 1.0 to 2.5 minutes per vehicle for SOVs and 3.0 to 5.0 minutes per vehicle for HOVs during peak periods.

Of the 30 freeway segments studied on SR-22, the Full Build Alternative would result in 13 less segments operating at LOS F than under the No Build Alternative. Six fewer intersections would operate at LOS F.

The Full Build Alternative includes a direct connection from SR-22 to downtown Santa Ana. This area is currently undergoing an aggressive redevelopment program, so such access could lead to downtown Santa Ana being a more attractive location for business. This could lead to economic development, reflected in local fiscal and employment benefits.

There would be an estimated 28,754 short-term construction jobs associated with the Full Build Alternative. Over the long term, there would be an undetermined increase in jobs due to the larger bus fleet, slightly increased maintenance labor needed for additional travel lanes and a new arterial, and slightly increased traffic enforcement needs.

B. SHORT-TERM COSTS/IMPACTS

The cost of constructing the Full Build Alternative is estimated at approximately \$763 million, including \$683 million for construction and over \$80 million for acquisition of additional right-of-way (in Year 2001 dollars).

Short-term impacts associated with the construction of the Full Build Alternative would include (see Section 4.15.1):

- Disturbance of soils (reduced to less than substantial by mitigation)
- Sedimentation in runoff (prevented by mitigation)
- Exposure of construction workers to earthquake-induced risks (reduced to less than substantial by mitigation)
- Indirect impacts on wetlands from runoff or erosion (prevented by mitigation)
- Traffic disruptions (reduced to less than substantial by mitigation)
- Air quality impacts (reduced to less than substantial by mitigation)
- Construction noise (may not be fully mitigated)
- Utility relocations (reduced to less than substantial by mitigation)
- Exposure to hazardous materials/wastes (reduced to less than substantial by mitigation)
- Reduction in visual quality (may not be fully mitigated)
- Energy use (less than substantial)

C. IMPACTS TO LONG-TERM PRODUCTIVITY

The Full Build Alternative would “use” (remove) open space, land planned for use as a recreational facility, historic resources, residences, and businesses, as explained below.

The Full Build Alternative would place an arterial in the former Pacific Electric right-of-way. This would remove the open space represented by the right-of-way. This impact would affect the following land uses most severely:

- Willowick Royal Mobile Home Park
- Willowick Municipal Golf Course
- Spurgeon Intermediate School

The arterial would also prevent the planned recreational land use for the former Pacific Electric right-of-way in Santa Ana. The City of Santa Ana has designated the right-of-way as a class I bicycle trail, although there are no current plans to construct the trail. In addition, the construction of the Pacific Electric Arterial would require the removal of the Pacific Electric Santa Ana River Bridge, which has been determined to be eligible for the National Register of Historic Places.

The Full Build Alternative would require the acquisition of 189 residences and 35 non-residential units. There are ample relocation sites for these displacements in the study area cities, however.

The Full Build Alternative is not consistent with land use policies of local jurisdictions that anticipate improvements to mobility and transportation facilities.

This alternative would contribute to the pollutant burden for nitrogen oxides and some elements of this alternative are not included in the existing (1998) RTP. Therefore, the Full Build Alternative does not conform to the existing RTP.

The Pacific Electric Arterial is not compatible with the Garden Grove *General Plan* land use designation (also with Santa Ana *General Plan* designation, as discussed above). The Full Build Alternative would result in unmitigable impacts to community cohesion in locations where the right-of-way requirements would require large numbers of acquisitions. In one location, the acquisition of right-of-way would remove the legal non-conforming use status a large multi-family property, which could lead to conversion of the entire property to non-residential, or at least additional relocations due to lack of parking. At another location, acquisition of an entire apartment complex, with a highly stable and cohesive population, would be required. Because relocation of this community as a whole would probably not be possible, there would be substantial impacts to community cohesion.²

The Full Build Alternative would remove approximately 66 percent of the existing freeway landscaping, with the majority of the landscaping remaining only at interchanges. This loss of the mature urban forest is a substantial impact. It would also reduce visual quality for a number of residential, recreational, and motorist viewers. New light sources would permanently affect viewers along the Pacific Electric Arterial. Freeway-oriented signage at nearby businesses would also be obstructed, potentially affecting business viability.

6.2.4 Reduced Build Alternative

A. SHORT-TERM BENEFITS

Short-term benefits that would result from the Reduced Build Alternative relate generally to improved traffic due to the availability of an alternative mode. There would be a small mode shift from drive-alone to transit (14 percent increase in transit ridership). The time spent commuting would decrease minimally (less than one percent) and there would be slightly higher speeds on

² Local planning documents cited herein are available at OCTA.

the freeways (3.1 percent higher), compared to the No Build Alternative. Within the corridor (including parallel arterials), there would be slight increases in speeds at some screenlines, most significantly between Harbor Boulevard and Haster Street, where there would be over an eight-kilometer-per-hour (five-mile-per-hour) improvement. There would be a substantial travel time benefit over the No Build Alternative, 1.0 to 2.1 minutes per vehicle for SOVs and 2.8 to 4.9 minutes per vehicle for HOVs during peak periods.

Of the 30 freeway segments studied on SR-22, the Reduced Build Alternative would result in 13 less segments operating at LOS F than under the No Build Alternative. Eight fewer intersections would operate at LOS F.

There would be an estimated 19,703 short-term construction jobs associated with the Reduced Build Alternative. Over the long term, there would be an undetermined increase in jobs due to the larger bus fleet, slightly increased maintenance labor needed for additional travel lanes, and slightly increased traffic enforcement needs.

B. SHORT-TERM COSTS/IMPACTS

The cost of constructing the Reduced Build Alternative is estimated at \$510 million, including \$468 million for construction and over \$42 million for acquisition of additional right-of-way (in Year 2001 dollars).

Short-term impacts associated with the construction of the Reduced Build Alternative would include (see Section 4.15.1):

- Disturbance of soils (reduced to less than substantial by mitigation)
- Sedimentation in runoff (prevented by mitigation)
- Exposure of construction workers to earthquake-induced risks (reduced to less than substantial by mitigation)
- Indirect impacts on wetlands from runoff or erosion (prevented by mitigation)
- Traffic disruptions (reduced to less than substantial by mitigation)
- Air quality impacts (reduced to less than substantial by mitigation)
- Construction noise (may not be fully mitigated)
- Utility relocations (reduced to less than substantial by mitigation)
- Exposure to hazardous materials/wastes (reduced to less than substantial by mitigation)
- Reduction in visual quality (may not be fully mitigated)
- Energy use (less than substantial)

C. IMPACTS TO LONG-TERM PRODUCTIVITY

The Reduced Build Alternative would “use” (remove) residences and businesses, as explained below. This alternative would require the acquisition of 10 residences and 24 non-residential units. There are ample relocation sites for these displacements in the study area cities, however.

This alternative would contribute to the pollutant burden for nitrogen oxides and some elements of this alternative are not included in the existing (1998) RTP. Therefore, the Reduced Build Alternative does not conform to the existing RTP.

The Reduced Build Alternative would remove approximately 60 percent of the existing freeway landscaping, with the majority of the landscaping remaining only at interchanges. This loss of the mature urban forest is a substantial impact.

6.3 CONCLUSIONS

6.3.1 No Build Alternative

Because there would be no construction under the No Build Alternative, except as addressed in previous environmental documents, there would be no short-term benefits or impacts and no long-term impacts to productivity.

6.3.2 TSM/Expanded Bus Service Alternative

Table 6.3-1 demonstrates the benefit/impact comparison of the TSM/Expanded Bus Service Alternative. Note that only the impacts that cannot be mitigated below a substantial level are listed under impacts/costs. Because of the limited amount of construction proposed under the TSM/Expanded Bus Service Alternative, the costs and impacts are low, compared to the other alternatives. However, the benefits are also more limited.

**Table 6.3-1
BENEFIT/IMPACT COMPARISON
TSM/EXPANDED BUS SERVICE ALTERNATIVE**

Benefits	Impacts/Costs
<ul style="list-style-type: none"> • 17% increase in transit ridership • 5% decrease in time spent commuting • 1.5% higher speeds on freeways • Slightly higher speeds at some screenlines • ½-minute travel time benefit during peak periods • 1 fewer freeway segment at LOS F • Undetermined number of construction jobs • Undetermined additional long-term jobs related to larger bus fleet 	<ul style="list-style-type: none"> • \$68 million cost to construct • Exceeds pollutant burden threshold for nitrogen oxides

6.3.3 Full Build Alternative

Table 6.3-2 demonstrates the benefit/impact comparison of the Full Build Alternative. Note that only the impacts that cannot be mitigated below a substantial level are listed under impacts/costs. The Full Build Alternative has a large number of benefits and also a large number of impacts. Many of these impacts are related to the Pacific Electric Arterial alone.

6.3.4 Reduced Build Alternative

Table 6.3-3 demonstrates the benefit/impact comparison of the Reduced Build Alternative. Note that only the impacts that cannot be mitigated below a substantial level are listed under impacts/costs. The Reduced Build Alternative has a large number of benefits, only slightly less than the Full Build Alternative, and a much shorter list of impacts, which is not surprising because the Reduced Build Alternative was developed expressly to reduce the impacts of the Full Build Alternative.

**Table 6.3-2
BENEFIT/IMPACT COMPARISON
FULL BUILD ALTERNATIVE**

Benefits	Impacts/Costs
<ul style="list-style-type: none"> • 14% increase in transit ridership • 4.5% decrease in time spent commuting • 4.1% higher speeds on freeways • Slightly higher speeds at all screenlines (esp. between Harbor Blvd. and Haster St.) • 1.0- to 2.5-minute travel time benefit for SOVs during peak periods • 3.0- to 5.0-minute travel time benefit for HOVs during peak periods • 13 fewer freeway segments at LOS F • 6 fewer intersections at LOS F • Direct connection to downtown Santa Ana could stimulate economic development, with fiscal and employment benefits • 21,528 short-term construction jobs • Undetermined additional long-term jobs related to larger bus fleet and increased maintenance and traffic enforcement needs 	<ul style="list-style-type: none"> • \$763 million cost to construct • Construction noise • Reduction in visual quality during construction • Permanent use of open space (former Pacific Electric right-of-way) • Preclusion of planned Pacific Electric class I bicycle trail • Removal of Pacific Electric Santa Ana River Bridge (eligible for NRHP) • Exceeds pollutant burden thresholds for nitrogen oxides • Preclude use of the former Pacific Electric right-of-way as designated by Garden Grove and Santa Ana • Community cohesion impacts to several communities • Removal of 66% of the existing freeway landscaping • Reduction in visual quality to views of and from the freeway • New light sources in previously dark area • Obstruction of freeway-oriented signage

**Table 6.3-3
BENEFIT/IMPACT COMPARISON
REDUCED BUILD ALTERNATIVE**

Benefits	Impacts/Costs
<ul style="list-style-type: none"> • 14% increase in transit ridership • Minimal decrease in time spent commuting • 3.1% higher speeds on freeways • Slightly higher speeds at some screenlines • 1.0- to 2.1-minute travel time benefit for SOVs during peak periods • 2.8- to 4.9-minute travel time benefit for HOVs during peak periods • 13 fewer freeway segments at LOS F • 8 fewer intersections at LOS F • 13,548 short-term construction jobs • Undetermined additional long-term jobs related to larger bus fleet and increased maintenance and traffic enforcement needs 	<ul style="list-style-type: none"> • \$510 million cost to construct • Construction noise • Reduction in visual quality during construction • Exceeds pollutant burden thresholds for nitrogen oxides • Removal of 60% of the existing freeway landscaping • Reduction in visual quality to views of and from the freeway

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